

## ICF Consulting / Laboratory Data Consultants

Environmental Services Assistance Team, Region 9 1337 South 46th Street, Building 201, Richmond, CA 94804-4698

Phone: (510) 412-2300 Fax: (510) 412-2304

MEMORANDUM

TO:

Chris Lichens, Remedial Project Manager

Site Cleanup Section 4, SFD-7-4

THROUGH:

Rose Fong, ESAT Task Order Manager (TOM)

Quality Assurance (QA) Program, MTS-3

FROM:

Doug Lindelof, Data Review Task Manager

Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041

Technical Direction Form No.: 00105001

DATE:

July 7, 2006

SUBJECT:

Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:

Omega Chem OU2

Site Account No.:

09 BC LA02

CERCLIS ID No.:

CAD042245001

Case No.:

33335

SDG No.:

Y1FR9

Laboratory:

Shealy Environmental Services, Inc. (SHEALY)

Analysis:

Semivolatiles

Samples:

18 Groundwater Samples (see Case Summary)

Collection Date:

September 13 through 16, 2004

Reviewer:

April Martinez, ESAT/Laboratory Data Consultants

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

Cynthia Gurley, CLP PO USEPA Region 4

Steve Remaley, CLP PO USEPA Region 9

CLP PO: [X] Attention

[] Action

SAMPLING ISSUES: [X] Yes

[ ] No

### **Data Validation Report**

Case No.: 33335 SDG No.: Y1FR9

Site: Omega Chem OU2

Laboratory: Shealy Environmental Services, Inc. (SHEALY)

Reviewer: April Martinez, ESAT/LDC

Date:

July 7, 2006

### I. CASE SUMMARY

## Sample Information

Samples: Y1FS0 through Y1FS9 and Y1FT1 through Y1FT8

Concentration and Matrix: Low Concentration Water

Analysis: Semivolatiles SOW: OLC03.2

Collection Date: September 13 through 16, 2004 Sample Receipt Date: September 15 through 17, 2004 Extraction Date: September 16 and 22, 2004

Analysis Date: September 22 and 28, 2004.

## Field QC

Field Blanks (FB): Not Provided
Equipment Blanks (EB): Not Provided
Background Samples (BG): Not Provided

Field Duplicates (D1): Y1FS1 and Y1FS2 Field Duplicates (D2): Y1FT5 and Y1FT6

## Laboratory OC

Method Blanks & Associated Samples:

SBLK71: Y1FT5 through Y1FT8

SBLK89: Y1FS0 through Y1FS9 and Y1FT1 through Y1FT4

### **Tables**

1A: Analytical Results with Qualifications

1B: Data Qualifier Definitions for Organic Data Review

### **CLP PO Action**

None.

## **CLP PO Attention**

- 1. Detected results for di-n-butylphthalate are qualified as nondetected and estimated (U,J) due to method blank contamination (see Comment B).
- 2. Results for some analytes are qualified as estimated (J) due to calibration problems (see Comments C, D, and E).
- 3. Results for some analytes are qualified as estimated (J) due to deuterated monitoring compound (DMC) recovery problems (see Comment F).

## Sampling Issues

Samples Y1FS9 and Y1FT1 through Y1FT3 were received by the laboratory with a cooler temperature of 6.8°C, which exceeds the 4±2°C sample preservation criterion. Since the cooler temperature is below 10°C, no adverse effect on data quality is expected.

## **Additional Comments**

Other than laboratory artifacts (approximate retention times of 5.0, 8.7, and 12.9 minutes), tentatively identified compounds (TICs) were found in the samples Y1FS0 through Y1FS3, Y1FS5 through Y1FS8, Y1FT1, Y1FT2, Y1FT3, and Y1FT7 (see attached Form 1LCGs).

The laboratory performed manual integrations on calibrations and samples due to incorrect auto integration. Manual integrations were reviewed and found to be satisfactory and in compliance with proper integration techniques.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Standard Operating Procedure 901, Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Volatile and Semivolatile Data Packages;
- USEPA Contract Laboratory Program Statement of Work for Analysis for Organic Analysis, OLC03.2, May 1999; and
- USEPA Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review, June 2001.

### II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

•	Parameter	<u>Acceptable</u>	Comment.
1.	Holding Time/Preservation	Yes	
2.	GC/MS Tune/GC Performance	Yes	•
3.	Initial Calibration	No	Ç, D
4.	Continuing Calibration	No	C, E
5.	Laboratory Blanks	No	В
6.	Field Blanks	· N/A	
7.	Deuterated Monitoring Compounds	No	F
8.	Matrix Spike/Matrix Spike Duplicates	N/A	
9.	Laboratory Control Samples/Duplicates	N/A	
10.	Internal Standards	Yes	
11.	Compound Identification	No	$^{\cdot}\mathrm{H}$
12.	Compound Quantitation	No	A, H
13.	System Performance	Yes	
14.	Field Duplicate Sample Analysis	No	G

N/A = Not Applicable

### III. VALIDITY AND COMMENTS

- A. The following results, denoted with an "L" qualifier, are estimated and flagged "J" in Table 1A.
  - All detected results below the contract required quantitation limits

Results below the contract required quantitation limits (CRQLs) are considered to be qualitatively acceptable, but quantitatively unreliable, due to the uncertainty in analytical precision near the limit of detection.

- B. The following results are qualified as nondetected and estimated due to method blank contamination and are flagged "U,J" in Table 1A.
  - Di-n-butylphthalate in samples Y1FS0 through Y1FS4, Y1FS6, Y1FS9, Y1FT2, Y1FT3, Y1FT4, and Y1FT7

Di-n-butylphthalate was found in method blank SBLK89 (see Table 1A for concentrations). Results for the samples listed above are considered nondetected and estimated (U,J) and quantitation limits have been raised according to blank qualification rules presented below.

No positive results are reported unless the concentration of the compound in the sample exceeds 10 times the amount in any associated blank for common laboratory contaminants or 5 times the amount for other compounds. If the sample result is greater than the CRQL, the quantitation limit is raised to the sample result and

reported as nondetected. If the sample result is less than the CRQL, the result is reported as nondetected at the CRQL.

Users should note that bis(2-ethylhexyl)phthalate found in samples may be an artifact because it is a common laboratory contaminant.

A laboratory method blank is laboratory reagent water or baked sand analyzed with all reagents, deuterated monitoring compounds, and internal standards and carried through the same sample preparation and analytical procedures as the field samples. The laboratory method blank is used to determine the level of contamination introduced by the laboratory during analysis.

- C. Results for the following analyte are qualified as estimated due to low relative response factors (RRFs) in initial and continuing calibrations and are flagged "J" in Table 1A.
  - Atrazine in samples Y1FS0 through Y1FS9 and Y1FT1 through Y1FT4 and method blank SBLK89

An average RRF of 0.022 was reported for atazine in the 9/18/04 initial calibration. An RRF of 0.025 was reported for atazine in the 9/22/04 continuing calibration. These values are below the 0.05 validation criterion.

Since atrazine results are nondetected, false negatives may exist.

The RRF evaluates instrument sensitivity and is used in the quantitation of target analytes.

- D. Results for the following analytes are qualified as estimated due to large percent relative standard deviation (%RSD) in initial calibrations and are flagged "J" in Table 1A.
  - Benzaldehyde, 2,4-dinitrophenol, and atrazine in samples Y1FS0 through Y1FS9 and Y1FT1 through Y1FT4 and method blank SBLK89

%RSDs of 88.3%, 51.8%, and 28.1% were reported for benzaldehyde, 2,4-dinitrophenol, and atrazine, respectively, in the 09/18/04 initial calibration. These values exceed the  $\leq 20.5\%/50.0\%$  validation criterion.

The initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run and of producing a linear calibration curve.

E. Results for the following analyte are qualified as estimated due to a large percent difference (%D) in the continuing calibration and are flagged "J" in Table 1A.

 Benzaldehyde in samples Y1FS0 through Y1FS9 and Y1FT1 through Y1FT4 and method blank SBLK89

%D of -59.0% was reported for benzaldehyde in the 09/22/04 continuing calibration. This value exceeds the  $\pm 50.0\%$  validation criterion.

The continuing calibration checks the instrument performance daily and produces the relative response factors (RRFs) for target analytes that are used for quantitation.

F. Results for the following analytes are qualified as estimated due to DMC recoveries outside QC limits and are flagged "J" in Table 1A.

## {Dimethylphthalate-d6}

• Caprolactam, 1,1'-biphenyl, dimethylphthalate, diethylphthalate, di-n-butylphthalate, butylbenzylphthalate, bis(2-ethylhexyl)phthalate, and di-n-octylphthalate in samples Y1FS9 and Y1FT5 through Y1FT8

## {4,6-Dinitro-2-methylphenol-d2}

• 4,6-Dinitro-2-methylphenol in samples Y1FS0 through Y1FS9, Y1FT1 through Y1FT4, Y1FT7, and Y1FT8 and method blank SBLK89

## {Acenaphthylene-d8}

• Naphthalene, 2-methylnaphthalene, 2-chloronaphthalene, acenaphthylene, and acenaphthene in sample Y1FT7

The DMC recoveries outside QC limits are shown below.

<u>Sample</u>	<u>DMC</u>	% Recovery	QC Limits
Y1FS9	Dimethylphthalate-d6	58%	62-102
Y1FT5	Dimethylphthalate-d6	50%	62-102
Y1FT6	Dimethylphthalate-d6	58%	62-102
Y1FT7	Dimethylphthalate-d6	48%	62-102
Y1FT8	Dimethylphthalate-d6	60%	62-102
Y1FT7	Acenaphthylene-d8	48%	49-98
Y1FS0	4,6-Dinitro-2-methylphenol-di	2 45%	53-153
YĮFS1	4,6-Dinitro-2-methylphenol-d	2 45%	53-153
Y1FS2	4,6-Dinitro-2-methylphenol-di		53-153
Y1FS3	4,6-Dinitro-2-methylphenol-di	2 50%	53-153
Y1FS4	4,6-Dinitro-2-methylphenol-d	2 48%	53-153
Y1FS5	4,6-Dinitro-2-methylphenol-d	2 43%	53-153
Y1FS6	4,6-Dinitro-2-methylphenol-d	2 45%	53-153
Y1FS7	4,6-Dinitro-2-methylphenol-di	2 50%	53-153
Y1FS8	4,6-Dinitro-2-methylphenol-di	2 43%	53-153
Y1FS9	4,6-Dinitro-2-methylphenol-di	2 35%	53-153
Y1FT1	4,6-Dinitro-2-methylphenol-di	2 48%	53-153
Y1FT2	4,6-Dinitro-2-methylphenol-di	2 43%	53-153

Y1FT3	4,6-Dinitro-2-methylphenol-d2	43%	53-153
Y1FT4	4,6-Dinitro-2-methylphenol-d2	45%	53-153
Y1FT7	4,6-Dinitro-2-methylphenol-d2	48%	53-153
Y1FT8	4,6-Dinitro-2-methylphenol-d2	48%	53-153
SBLK89	4,6-Dinitro-2-methylphenol-d2	48%	53-153
SBLK89RE	4,6-Dinitro-2-methylphenol-d2	45%	53-153

Detected results for affected analytes may be biased low; where results are nondetected, false negatives may exist. The samples were not reanalyzed.

Surrogates (e.g., deuterated monitoring compounds (DMCs)) are organic compounds which are similar to the target analytes in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples. All samples are spiked with DMCs prior to purging. DMCs provide information about both the laboratory performance on individual samples and the possible effects of the sample matrix on the analytical results.

G. In the analysis of the field duplicate pairs, the following outliers were reported.

	Y1FS1 (D1)	Y1FS2 (D1)	
<u>Analyte</u>	Conc., $\mu$ g/L	Conc., $\mu$ g/L	RPD (<25%)
bis(2-Ethylhexyl)phtha	late 5.6	4.2	29
•	Y1FT5 (D2)	Y1FT6 (D2)	
Analyte	Conc., µg/L	Conc., µg/L	RPD (<25%)
bis(2-Ethylhexyl)phtha	late 32	17	61

The effect on data quality is not known.

The analysis of field duplicate samples is a measure of both field and analytical precision. The imprecision in the results of the analysis of the field duplicate pair may be due to the sample matrix or poor sampling or laboratory technique.

H. The laboratory reported detected results for 4-nitrophenol in samples Y1FS0 and Y1FS1 of 1.6  $\mu$ g/L (below the CRQL of 5.0  $\mu$ g/L). However, the mass spectra do not meet the specified National Functional Guidelines criteria. In the reviewer's professional judgment, 4-nitrophenol in samples Y1FS0 and Y1FS1should not be reported as detects because the ion m/z 139 is missing in the sample mass spectra (attached, p. 883 and 895 in data package). The peak at retention time of 11.4 minutes is the DMC 4,6-dinitro-2-methylphenol-d2. Results for 4-nitrophenol in samples Y1FS0 and Y1FS1 are reported in Table 1A as nondetected (5.0U).

#### ANALYTICAL RESULTS

Case No.: 33335

SDG No.: Y1FR9

Table 1A

Site: OMEGA CHEM OU2

Lab: SHEALY ENVIRONMENTAL SERVICES, INC.

Reviewer: April Martinez ESAT/LDC

April Martinez ESAT/CDC

Date: 07/07/2006

QUALIFIED DATA Concentration in ug/L

Analysis Type: Low Level Water Samples

For Semivolatiles

Station Location :	OC2-MW4A-	W-0-58		OC2-MW4B	-W-0-59		OC2-MW4B	-W-1-60		OC2-MW	4C-W-0-	61	OC2-MW1B	-W-0-62	>	OC2-MW1A	-W-0-63		OC2-MW2A	-W-0-64	-
Sample ID :	Y1FS0			Y1FS1		D1	Y1FS2	,	D1	Y1FS3			Y1FS4			Y1FS5			Y1FS6		
Collection Date :	9/13/2004			9/13/2004		- '	9/13/2004			9/13/200			9/14/2004			9/14/2004			9/14/2004		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0	-		1.0			1.0		
	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Va	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Benzaldehyde	5.0U	.1	DE	5.0U	1 1	DE	5.0U	J	DE	5.0		DE	5.0U	1 1	DE	5.0U	- <u></u>	DE	5.0U	J	DE
Phenol	5.0U	1.	:-:	5.0Ù			5.0U	, , ,		5.0			5.0U	ļ	<u> </u>	.5.0U		1775	5.0U		
bis-(2-Chloroethyl) ether	5.0U		As	5.0U		اقلمتمحم	5.0U			5.0		· - 1 · `	5.00	سائتت	124	5.0U	151.5		5.0U		e i se redición
2-Chlorophenol	5.0U	17.00		5.0U		मा प्राप्त	5.0U		/	5.0			5.0U		· .	5.0U			5.0U	p	****
2-Methylphenol	5.0U			5.0U		****	5.0U	4.1		5.0	·		5.00		· · · · · · · · · · · · · · · · · · ·	5.00	<del></del>		5.0U		
2,2'-oxybis(1-Chloropropane)	5.0U			5.0U			5.0U			5.0		-	5.0U	<b></b>	1 -	5.0U	-,	ļ	5.0U		
Acetophenone	5.0U			5.0U		<u></u> :	5.0U			5.0		-	5.0U			5.0U			5.0U		
4-Methylphenol	5.0U			5.0U		,	5.0U	<u>                                     </u>		5.0			5.0U			5.0U		<del></del>	5.0U		
N-Nitroso-di-n-propylamine	5.0U			5.0U			5.0U		<u> </u>	5.0			5.0U		1	5.0U	· .	'	5.0U	l	
Hexachloroethane	5.0U	F	<b>*</b> ~~, *** -	5.0U	·		5.0U	g · · ·		5.0			5.0U			5.00			5.0U		
Nitrobenzene	5.0U			5.0U			5.0U			5.0			5.0U		1	5.0U			5.0U		
Isophorone	5.0U			5.0U			5.0U		· ···	5.0			5.0U			5.0U			5.00		
2-Nitrophenol	5.0U			5.0U			5.0U	·		5.0			5.0U			5.0U	Part 10 - 4 10	·	5.0U		
2,4-Dimethylphenol	5.0U			5.0U		,	5.0U		s	5.0	ύ   ····		5.0U			5.0U			5.0U		
bis(2-Chloroethoxy)methane	5.0U			5.0U		*** * ***	5.0U		*****	5.0	u l		5.0U		1	5.0U	1		5.0U	1	~
2,4-Dichlorophenol	5.0U	. 41	30.7	5.0U			5.0∪	FORT		5.0	u 📗	er e regi	5.0U			5.0U			5.0U		11: " " " ,
Naphthalene	5.0U	-		5.0U			5.0U		7	5.0	Ū	and the second second	5.0U		1	5.0U	1 1		5.0U		
4-Chloroaniline	5.0U			5.0U			5.0U			5.0	ũ -		5.0∪		~ .	5.0U			5.0U		
Hexachlorobutadiene	5.0U			5.0U			5.0U			5.0	U		5.0U		1	5.0U			5.0U		
Caprolactam	- 5.0U			5.0U			5.0U			5.0	Ü .		5.0U			5.0U			5.0U		
4-Chloro-3-methylphenol	5.0U			5.0U			5.0U			5.0	U		5.0U			5.0U			5.0U	I	
2-Methylnaphthalene	5.0Ü	i F		5.0U			5.0U±	Ti		5.0	υ		5.0U	7	,	5.0U		77.4.5.	5.00		
Hexachlorocyclopentadiene	5.0U			5.0U			5.0U			, 5.0	υ		5.0U	1233	1	5.0U			5.0U		
2,4,6-Trichlorophenol	5.0U			5.0U			5.0U		******	5.0	Ú 🗀		5.0∪		<u> </u>	5.0U	7,77,		5.0U		
2,4,5-Trichlorophenol	20U			20U			20U		•	20	Ü		20U			20U		I	20U		
1,1'-Biphenyl	5.0U			5.0U			5.0U			5.0	Ü		5.0U		I	5.0U			5.0U		
2-Chloronaphthalene	5.00			5.0U			5.0U	I		5.0	u		5.0U		l ·	5.00			5.00	}	
2-Nitroaniline	20U			20U	11.6	ALCE OF	-20U	l		20	υl		20U			20Ú		3,575			
Dimethylphthalate	5.00			5.0U			5.0U	I		5.0	U		5.0U			5.0U			5.0U		
2,6-Dinitrotoluene	5.00			5.00		11.5	5.0U		7.7.7	5.0	ũ 📗		5.0∪			5.00	70		5.0U		
Acenaphthylene	5.0U			5.0U			5.0U	Ī		5.0	U		5.0U		L	5.0U			5.0U		
3-Nitroaniline	20U			20U			20U		- +	. 20	U		20U			20U			20U	· .	
Acenaphthene	5.0U			5.0U			5.0U	I		5.0	U		5.0∪			5.0U			5.00	l	
2,4-Dinitrophenol	20U	J	D	20U	J	D	20U	j	D	20	U J	Ď	20U	J	D	20U	្វិរ	D.	. 20∪	J	D
4-Nitrophenol	5.0U		Н	5.0U		Н	20U			20	U		200			20U		[	20U		.,,
Dibenzofuran	5.0U		***************************************	5.00	: - : :		5.0U			5.0	U		5.00			5.0U	F .		5.0U		
2,4-Dinitrotoluene	5.0U			5.0U			5.0U			5.0	Ū		5.0U			5.00	Ĺ		5.0U		Ĺ.,

Case No.: 33335

SDG No.: Y1FR9

Site: OMEGA CHEM OU2

Lab: SHEALY ENVIRONMENTAL SERVICES, INC.

Reviewer: April Martinez ESAT/LDC

Date: 07/07/2006

QUALIFIED DATA
Concentration in ug/L

Analysis Type: Low Level Water Samples

For Semivolatiles

	<del></del>			1	= ==	-	1			T			T								
Station Location :	OC2-MW4A	-W-0-58		OC2-MW4E	s-W-0-59		OC2-MW4E	3-W-1-60		OC2-MW4C	-W-0-61		OC2-MW1B-	W-0-62		OC2-MW1A	-W-0-63		OC2-MW2A	-W-0-64	, I
Sample ID :	Y1FS0			Y1FS1		D1	Y1FS2		D1	Y1FS3			Y1FS4			Y1FS5			Y1FS6	•	J
Collection Date :	9/13/2004			9/13/2004		•	9/13/2004			9/13/2004			9/14/2004			9/14/2004			9/14/2004		J
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0			1.0 ·		
Semivolatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Diethylphthalate	5.0U			5.0U			5.0U			5.0U			- 5.0U	~ ~ ~ ~ .	-	5.0∪			5.0U		
Fluorene	5.00			5.00			5.0U	1.1		5.00			5.0U		in anat	5.0U	ا تامیک در		5.0U		
4-Chlorophenyl-phenylether	5.0U		Í	5.0∪	1		5.00	l	l	5.00	1556		5.0U			5.0U	l		5.0U		
4-Nitroaniline	- 20U			20U			20U			20U	fr.w.		200			20U		57	20U		
4,6-Dinitro-2-methylphenol	20U	J	F	20U	_ <u>,</u>	F	20U	J	F	20∪	J	F	20U	J	_ F	20U	J	F	20U	J	F_
N-Nitrosodiphenylamine	5.0U			5.0U		:	5.0U			5.0U			5.0U			5.00			, 5.0U		
1,2,4,5-Tetrachlorobenzene	5.0U		I	5.0U			5.00		l	5.0U	l		5.0U			5.0U			5.00	İ	
4-Bromophenyl-phenylether	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0U		
Hexachlorobenzene	5.0U			5.0∪		i	5.0∪			5.0U			5.0∪			5.00			5.0U		ļ !
Atrazine	5.0U	, j	CD	5.0U	J	· CD	5.0U	J	CD	5.0U	Ĵ	CD	5.0U	j.	CD	5.0U	j.	CD	5.00	J	CD
Pentachlorophenol	5.0∪			5.0U		l	5.0U	I		5.0U			5.0U			5.0U			5.0U		
Phenanthrene	5.0U			5.0U			5.0U			5.00			5.0U			5.0U			5.00		
Anthracene ·	5.0U		l	5.0∪	Ι.	<b>.</b>	5.0∪	<u> </u>	<b>.</b>	5.0U	ļ .	ļ	5.0U			5.0U		,	5.00	1	, i
Di-n-butylphthalate	5.0U	J	В	5.00	J	В	5.0∪	J	В	5.0U	J	В	5.0U	J	В	5.00			5.0ህ	·j	В
Fluoranthene	5.0∪		l	5.0U			5.0∪	l		5.0∪			5.0U			5.0U			5.0U		
Pyrene	5.0U			5.0∪			5.0U			5.0U		213,340,476.1	5.0U			5.0U			5.00		
Butylbenzylphthalate	5.0U			5.0∪		1	5.0∪			5.0U			5.0U			· 5.0U			5.0U		
3,3'-Dichlorobenzidine	5.0Ú			5.0U			5.0U		.,,,	5.0∪			5.0U			5.0U			5.0U		
Benzo(a)anthracene	5.0U			5.0U		1	5.0U	1	]	5.0U			5.0∪			5.0U			5.0U		
Chrysene	5.0U			5.0U			5.0U			5.0∪			5.00			5.0U			5.0U		
bis(2-Ethylhexyl)phthalate	13			5.6		G	4.2L	J	AG	59			4.4L	J	Α	20			12		
Di-n-octylphthalate	5.0U			5.0U			5.0U		Li.	5.0U	3		5.0U			5.0U		`	5.00		
Benzo(b)fluoranthene	5.0U			5.00			5.0U			5.0U			5.0U			5.0U			5.0U		
Benzo(k)fluoranthene	5.0U			5:0U			5.00	- 7		5.0U			5.0U		2012	5.0U			5.00	l	
Вепzо(а)рутепе	5.0U			5.0U	· ·		5.0U	1		5.0∪			5.0U			5.0U			5.00		
Indeno(1,2,3-cd)pyrene	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0U		
Dibenzo(a,h)anthracene	5.0U			5.0U	I	[ · ·	5.0U			5.0U	l		5.0U			5.0U			5.0U	l	[
Benzo(g,h,i)perylene	5.0Ŭ			5.0U			5.0U			5.0U			5.0U			5.0U		j	5.00		

Val - Validity. Refer to Data Qualifiers in Table 18.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Llmit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

#### ANALYTICAL RESULTS Table 1A

Case No.: 33335

SDG No.: Y1FR9

Reviewer: April Martinez ESAT/LDC

Site: OMEGA CHEM OU2

Lab: SHEALY ENVIRONMENTAL SERVICES, INC.

Date: 07/07/2006

QUALIFIED DATA

Analysis Type: Low Level Water Samples

For Semivolatiles

Concentration in ug/L

Station Location :	OC2-MW6A-	W-0-65		OC2-MW5A	-W-0-66		OC2-MW9B	-W-0-67		OC2-MW8B	-W-5-69	)	OC2-MW8C-	-W-0-70		OC2-MW8A	-W-0-71		OC2-MW8D	-W-0-72	$\neg$
Sample ID :	Y1FS7 ·			Y1FS8			Y1FS9			Y1FT1.			Y1FT2			Y1FT3			Y1FT4		
Collection Date :	9/14/2004			9/14/2004			9/15/2004			9/15/2004			9/15/2004			9/15/2004			9/15/2004		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0			1.0		
Semivolatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Benzaldehyde	5.0U	J	DE	5.0U	J	DE	5.0U	J	DE	5.0U	· J	DE	5.0U	J	DE	5.0U	J	DE	5.0U	J	DE
Phenol	5.00		77	5.0U			. 5.0U			5.0U			5.0U			5.0U			5.0U		
bis-(2-Chloroethyl) ether	5.0U		1	5.0U	1		5.0U			, 5.0U		1	5.0U		<u> </u>	5.0U		1	5.0∪		
2-Chlorophenol	5.0U			5.0U			5.0U			5.0U	,	~~~~	5.0U			5.0U			5.00		
2-Methylphenol	5.0U			5.0U	1		5.0U			5.0U			5,0U		X	5.0U		l	5.0U		
2,2'-oxybis(1-Chloropropane)	5.0U			5.0U	12.00	-	5.0Ü		54, .	5.0U			5.00			5.0U	16.3	<b>建设型</b> 化	5.0U		
Acetophenone	5.0U			5.00			5.0U			5.0U			5.0U	A. VI.		5.0U			5.0U		I
4-Methylphenol	5.0U		7.7	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U		
N-Nitroso-di-n-propylamine	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0U		
Hexachloroethane	5.0U			5.0U	17 15 5		5.0U			5.0U			5.QU	and the second		5.0U			5.0U		
Nitrobenzene	5.0U			5.0U			5.0∪			5.0U			5.00			5.0U		1	5.0U		i
Isophorone	5.0U			5.0U			5.0U	7		5.0U			5.0U	, .		5.0U			5.0U		5
2-Nitrophenol	5.0U			5.0U			5.0U		72///	.5.0U	]		5.0U			5.0U			5.0U		
2,4-Dimethylphenol	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0U		
bis(2-Chloroethoxy)methane	5.0U	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	5.0U			5.0U			. 5.0U			5.0U		l	5.0U	I		5.0U		
2,4-Dichlorophenol	, 5.0Ü.			5.0U	77.79	- ZA	5.0Ü			5.0U		.516. X	5.0U			5.0U			5.0U		47.2
Naphthalene	5.0U		,	5.0U			5.0U			5.0U			5.0U	-	1	5.0U			5.0U		
4-Chloroaniline	5.0U			5.00			5.0U			5.0U			5.00			5.0U			5.0U		
Hexachlorobutadiene	5.0∪			5.0U			5.0U			5.0U			5.00			5.0U			5.0U		II
Caprolactam	5.0U			5,0U			5.0U	J	F	.5.0U			5.0U			5.0U			. 5.0U		
4-Chloro-3-methylphenol	5.0U			5.QU			5.0∪			5.0U	1		5.0U			5.0∪	l		5.0U		ı i
2-Methylnaphthalene	5.0U	377	[	5.00			5.00			. ₹ 5.0U			5.00			5.00	136 L	L``	5.0U	1 1 1 1 1 1 1 1	3
Hexachlorocyclopentadiene	5.0U		l	5.0U			5.00			5.0U			5.0U			5.0U	l		5.0U		ll
2,4,6-Trichlorophenol	5.0U	/ .		5.00			5.0U			5.0U			5.0U			5.0U			5.0U		
2,4,5-Trichlorophenol	20∪			20U	1		20U			20U			20∪			20U			20U		
1,1'-Biphenyl	5.00			5.00			5.0U	J	F F	5.0U		1	5.00		1	, 5.0U			5.00		أ.أ.ال
2-Chloronaphthalene	5.0U			5.0U		ł	5.0∪		l	5.0U		L	5.0∪			5.0U	l	1	5.0U		il
2-Nitroaniline	20∪			20U			20U			20U			200	±		. 20∪	250	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	20U	3 - A	
Dimethylphthalate /	5.0U		<u> </u>	5.0U			5.0U	J	F	5.0U	l		5.0U			5.0U		l	5.0U		ll
2,6-Dinitrotoluene	5:00		2	5.0U			5.0U			5.0U	<u>.</u>		5.0U			5.0U	ر آن ا معالی عامل		5.0U		
Acenaphthylene	5.0U		l. <u></u>	5.0U	l		5.0U			5.0U			5.0U			5.0U			5.0U		
3-Nitroaniline	20U	. :::::::::::::::::::::::::::::::::::::		20U			20U			20U		٠٠. . مشتشد	20U			20U			20U		
Acenaphthene	5.0U			5.0U			5.00			5.0U			5.0U			5.0U			5.0U		
2,4-Dinitrophenol	20U	J	D	20U	آ ال	D	20U	J	D	20U	J	D	20U	j	D	20U	_ j	. D	20U	J	D
4-Nitrophenol	20U		<u></u>	20U	L		20U			20U	 		20U			20U			20U		1
Dibenzofuran	5.0U		22	5.0U			5.0U			5.0U			5.0U			5.0U		0 A 1 (a)	5.0U		
2,4-Dinitrotoluene	5.0U			5.0U		<u> </u>	5.0U			5.0U			5.0U		<u></u>	5.0U			5.0U		

#### ANALYTICAL RESULTS

Table 1A

Case No.: 33335

5 SDG No.: Y1FR9

Site: OMEGA CHEM OU2

Lab: SHEALY ENVIRONMENTAL SERVICES, INC.

Reviewer: April Martinez ESAT/LDC

Date: 07/07/2006

QUALIFIED DATA Concentration in ug/L Analysis Type: Low Level Water Samples

For Semivolatiles

Station Location :	OC2-MW6A	-W-0-65		OC2-MW5A	-W-0-66		OC2-MW9B	-W <i>-</i> 0-67		OC2-MW8B	-W-5-69		OC2-MW8C-	W-0-70		OC2-MW8A-	W-0-71	•	OC2-MW8D	-W-0-72	
Sample ID:	Y1FS7			Y1FS8 ·			Y1FS9		-	Y1FT1			Y1FT2			Y1FT3			Y1FT4		
Collection Date :	9/14/2004			9/14/2004			9/15/2004			9/15/2004			9/15/2004			9/15/2004			9/15/2004		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0		•	1.0		
Semivolatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Diethylphthalate	5.0U		· · · ·	5.0U			5.00	J	F	5.00			5.0U			5.0U			5.0U		
Fluorene	5.0U			5.0U		# 10 marcon	5.0U	1737		5.0U			5.00			5.00	•		5.0U		/-,
4-Chlorophenyl-phenylether	5.0U			5.0U		- ***	5.0U		l	5.0U			5.0U			5.0U			5.0U		
4-Nitroaniline	20U		· · · · ·	20U		•	<b>20</b> U			20U			20U			20U	,-	1	20U		
4,6-Dinitro-2-methylphenol	200	J	F	20U	J	F	20U	Ĵ	F	200	J	F	20U	J	F	20U	J	F	200	J	F
N-Nitrosodiphenylamine	5.0U			5.0U			5.00			5.0U			5.0U			5.0U			5.00		
1,2,4,5-Tetrachlorobenzene	5.0U			5.0U	I	I	5.00			5.0U	I	l	5.0U			5.0U		]	5.0U		1
4-Bromophenyl-phenylether	. 5.0U			5.0U			5.0U			5.0U			5.00			5.0U			5.0U		
Hexachlorobenzene	5.0U			5.0U			5.0U			5.0U			5.0U			5.00			5.0U		
Atrazine	5.0U	· J.	CD	5.0U	J	CD	5.0U	J	CD	5.0Ú	J	CD	5.0U	J	CD	5.0U	J	CD	5.0U	J	CD.
Pentachlorophenol	5.0∪			5.0U			5.0U			5.0U			5.0U			5.0U			5.0U	1	
Phenanthrene	5.0U			5.0Ú			5.0U			- `5.0U			5.0U			5.0U			5.0U		
Anthracene	5.0U		1	5.0U			5.0U			5.0U			5.0U			5.0U			5.00		
Di-n-butylphthalate	5.0U			5.0U			5.0U	Ĵ	BF	5.0U			5.0U	J	В	5.0U	J	В	5.0U	J	В
Fluoranthene	5.0U			5.0∪			5.0U			5.00	l . i	ł	5.0U			5.00			5.0U	l .	l'
Pyrene	5.0U			5,0U			5.0U			5.0U			5.0Ù			5.00		2	5.0U		
Butylbenzylphthalate	5.0U			5.0U			5.0U	J	F	5.0U			5.0U			5.0U			5.0U		
3,3'-Dichlorobenzidine	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0U		
Benzo(a)anthracene	5.0U			5.0U			5.0∪			5.0U	1		5.0U			5.0U			5.0U		
Chrysene	5.0∪			5.0U			5.0U		1	5.0U			5.0U			5.0∪			5.0U		
bis(2-Ethylhexyl)phthalate	2.6L	J	Α	3.0L	j	Α	5.0U	J	F	9.3			19			2.5L	J	Α	18		l
Di-n-octylphthalate	5.00			5.QU			5.0U	J`.	F	5.00		2.5	5.0U			5.00			5.00		
Benzo(b)fluoranthene	5.0U			5.0U			5.0U			5.0U			5.0∪			5.0U			5.0U		L
Benzo(k)fluoranthene	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0U		
Benzo(a)pyrene	5.0U		l	5.0∪			5.0U			5.0U			5.0U			5.0U			5.0U		
Indeno(1,2,3-cd)pyrene	5.0Ü			5.0U			5.00			5.0Ù	A		5.0∪	40.04 1.0		5.0U			5.00		
Dibenzo(a,h)anthracene	5.0∪	[		5.0U			5.0U	l		5.0U			5.0U			5.0U			5.0U		L
Benzo(g,h,i)perylene	5.0U		l	5.0U	. `";"		5.0U	I		5.0U			5.0U			5.0U		1	5.0U	1	

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Llmit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

#### ANALYTICAL RESULTS Table 1A

Case No.: 33335

Site: OMEGA CHEM OU2 Lab: SHEALY ENVIRONMENTAL SERVICES, INC.

Reviewer: April Martinez ESAT/LDC

Date: 07/07/2006

QUALIFIED DATA Concentration in ug/L

Analysis Type: Low Level Water Samples

For Semivolatiles

Citation I continue	OC2-MW7A	14/ 0.72		OC2-MW7A	10/ 1 74		OC2-MW3Ā	M 0.75		OC2-MW10A	A 14/ O 7	c	Method Blan	ı.		Method Blan	L.				
Station Location :			D2	Y1FT6		D2	Y1FT7	-44-0-75		Y1FT8	4-VV-U-7	ь	SBLK71	K	,	SBLK89	K		CRQL		
Sample ID :	Y1FT5		U2			U2					,		SBLK/1			SBLK89			CRUL		
Collection Date :	9/16/2004			9/16/2004			9/16/2004			9/16/2004						l					
Dilution Factor : Semivolatile Compound	1.0	Val	T	1.0 Result	Val	Com	1.0 Result	Val		1.0 Result	Val	Com	1.0 Result	Val		1.0 Result	Val	Com	Result	Val	Com
Benzaldehyde	Result 5.0U	Vai	Com	Kesuit 5.0U	vai	Com	5.0U	Vai	Com	Kesuit 5.0U	vai	Com	5.0U	vai	Com	5.0U	Vai	DE	5.0	vai	Com
Phenol	5.0U	·*****.	3	5.0U			5.0U 5.0U	-35-3		5.0U 5.0U			5.0U			5.00			5.0	·	
bis-(2-Chloroethyl) ether	5.00	44.4		5.00			5.0U		ŀ	5.0U			5.0U		'	5.00	مشرات د		5.0		
2-Chlorophenol	5.0U			5.0U			5.0U	ļ		5.0U		٠ ،	5.0U			5.0U			5.0		
2-Methylphenol	5.0U			5.0U			5.00			5.0U			5.0U			5.0U			5.0	:	
2,2'-oxybis(1-Chloropropane)	5.0U			5.00			5.0U	l		5.0U			5.0U			5.0U			5.0		
Acetophenone	5.0U			5.0U		مستند سنت	5.0U		· *	5.0U		·- ·	5.0U			5.0U		******	5.0		
4-Methylphenol	5.0U			5.0Ū			5.0U	<b></b>	775	5.0U		,	5.0U		7.3	5.0U		· · ·	5.0		
N-Nitroso-di-n-propylamine	5.0U	l ''	~~~	5.0U	. معدد ومكف		5.00		'	5.0U	- **** in	* -	5.0U		~ * <u>~ ~</u>	5.0U	*****		5.0		
Hexachloroethane	5.0U	*****		5.0U	g	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5.0U		l	5.0U			5.0U	3 11 0		5.0U	7 7 7		5.0		500
Nitrobenzene	5.0U		ľ	5.0U		> ++ + > <del>******************************</del>	5.00			5.0U			5.0U			5.0U			5.0	man ( ) a (	
Isophorone	5.0U			5.0U			5.0U	7		5.0U			5.0U			5.0U		1,	5.0		
2-Nitrophenol	5.0U	•		5.0U			5.0∪		l	5.0U		<b>1</b>	5.0U			5.0U		l '	. 5.0		· · · · · · · · · · · · · · · · · · ·
2,4-Dimethylphenol	5.0U			5.0U			5.0U			5.0∪			5.0U			5.0U			5.0		
bis(2-Chloroethoxy)methane	5.0U			5.0U			5.00			5.0U			5.0U			5.0U	201-12-0	,	5.0		
2,4-Dichlorophenol	5.0∪	نهُ عداعاً		5.0U			5.0U			5.0U			. 5.0U			5.00		and the second	5.0		·
Naphthalene	5.0U		e nye n nyegym	5.0U			5.0U	j	F	5.0U			5.00			5.0U		. <del></del>	5.0		
4-Chloroaniline	5.0∪		15.0	5.0U	<u> </u>					5.00			5.0∪			5.00			5.0		
Hexachlorobutadiene	5.00			5.0U			5.0U			5.0∪			5.0U			5.0U	M 70 F V20 M22	a a Jan Sandanan	5.0		
Caprolactam	5.0U	<u></u> j	_ <u>F</u>	- 5.0U		_ F .	5.0U	J	F	5.00	J.	F	5.0U			5.00			5.0		
4-Chloro-3-methylphenol	5.0U			5.0U			5.0U			5.00			5.0U			5.0U			5.0		
2-Methylnaphthalene	_5.0U			5.0U			5.0U	J	<u>.</u> F	5.0U			5.0U 5.0U		- "	5.00		نست	5.0		
Hexachlorocyclopentadiene	5.0U	<b></b>	, ,	5.0U		.,	5.0U 5.0U			5.0U 5.0U			5.0U			5.0U 5.0U	281.3		5.0 5.0		
2,4,6-Trichlorophenol	5.0U 20U	·	•• > • •	5.0U 20U		<u></u> .	20U		<b>.</b>	20U		أحفات	20U	~		20U		· · · · · · · · · · · · · · · · · · ·	20		
1,1-Biphenyl	200 5.0U	276	一直奏	200 5.0U			5.0U		F	20U	∜ <b>J</b> -∵		5.0U			5.0U			20 ⇒ 5.0	<del>.</del>	V2
2-Chloronaphthalene	5.00		of other con-	5.0U			5.0U		F	5.0U		. " '	5.0U		: :-	5.0U	- Estimate		5.0		
2-Nitroaniline	20U			20U			20U		· :	20U		11. 12. 11. 12. 12. 12. 12. 12. 12. 12. 12. 12.	20U		in in the second	20U	~	现石。	20		ر. در استان است
Dimethylphthalate	5.0U	المناسطات ال	F	5.0U		F	5.0U	J	F	5.0U	J	F	5.0U			5.0U		بالمتاسية	5.0		1
2,6-Dinitrotoluene	5.0U		75	5.0U		-·	5.0U	<del></del>		5.QU	<del></del>		5.0U	<del></del>		5.0U		-	. 5.0	<del></del>	
Acenaphthylene	5.0U		<del></del> -	5.0U		· in	5.0U	J	F.	5.0U			5.0U		/-	5.0U			5.0		
3-Nitroaniline	20U	7.77		20U	<del></del>		20U	-:	٠	_∴ 20U			20U			20U	1	300	20		
Acenaphthene	5.0U			5.0U			5.0U	J	F	5.0U		Ī :	5.0U			5.0U			5.0		
2,4-Dinitrophenol	20U	10.00	i :	20U	1	1	20U		Togas .	20U			20U	4 1		20U	J	D	20		
4-Nitrophenol	20U			20∪	L		20U			20U	l		20U			20U			20		
Dibenzofuran	5.0U			5.00	37	I	5.0U			5.0U		1 No. 1	5.0U		773.5	5.00		7.4	50	T / Z	
2,4-Dinitrotoluene	5.0U		l	5.0U	I	Ī .	5.0U	Ì	1	5.0U			5.0U			5.0U		1 .	5.0		1 '

Case No.: 33335

SDG No.: Y1FR9

Site: OMEGA CHEM OU2

Lab: SHEALY ENVIRONMENTAL SERVICES, INC.

Reviewer: April Martinez ESAT/LDC

Date: 07/07/2006

QUALIFIED DATA

Analysis Type: Low Level Water Samples

Concentration in ug/L

For Semivolatiles

Station Location :	OC2-MW7A	-W-0-73		OC2-MW7A	-W-1-74	_	OC2-MW3A	-W-0-75	i	OC2-MW10	A-W-0-7	6	Method Blank	ζ	-	Method Blan	ık		Γ		
Sample ID :	Y1FT5		D2	Y1FT6		D2	Y1FT7			Y1FT8			SBLK71			SBLK89			CRQL		į
Collection Date :	9/16/2004			9/16/2004			9/16/2004			9/16/2004						1			}		)
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0			1		,
Semivolatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Diethylphthalate	5.0U	J	F	5.0U	J	F	5.0U	J	F	5.0U	J	F	5.0∪			5.0U			5.0		$\Box$
Fluorene	5.0U	7:		5.0U			5.0U			5.0U			5.0U			5.0U	- ~		5.0		
4-Chlorophenyl-phenylether	5.0U			5.0U			5.0U	1		5.0∪			5.0U			5.0U			5.0	4. 4. 7	
4-Nitroaniline	20∪			20U			20U			20U			20U			20U		:	20		
4,6-Dinitro-2-methylphenol	20U			20U	l	]	20U	· . j	F	20U	J	F	20U			20U	J	F	20	14,,	
N-Nitrosodiphenylamine	<del>-</del> 5.0∪	- , , , , , , ,	3.0	5.0U		- · · · · · · ·	5.0U			5.0U			5.0U			5.0U			5.0	7	****
1,2,4,5-Tetrachlorobenzene	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0		
4-Bromophenyl-phenylether	5.0U			5.0∪			5.0U			5.0U			5.0U			5.0U			5.0		
Hexachlorobenzene	5.0U			· 5.0U		1	5.0∪			5.0U			5.0U			5.0∪			5.0		
Atrazine	5.0U			5.0U			5.0U			5.0U			5.0U			5.0∪	<u>.</u> j -	CD	5.0		
Pentachlorophenol	5.0U			5.0U	1	1	5.0U			5.0U			5.0U			5.0U			5.0		
Phenanthrene .	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0		
Anthracene	5.0U			5.0U			5.0U			5.0U			5.0U			5.0∪			5.0		
Di-n-butylphthalate	5.0U	J	F	5.0U	J	F	5.0U	J	BF.,	5.0U	j j	F	5.0U	7.7		2.2L	J	A	5.0		
Fluoranthene	5.0U			- 5.0U			5.0U			5.0U	,		5.0∪	· ·		5.0U			5.0		
Pyrene	5.0U			5.0Ú			5.0U			5.0U			5.0U			5.0U			5.0		
Butylbenzylphthalate	5.0U	J	F	5.0U	J	F	5.0U	J	F.	5.0U	J	F	5.0U			5.0∪			5.0		
3,3'-Dichlorobenzidine	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0		
Benzo(a)anthracene	5.0U			5.0U	- 3-		5.0U			5.0U	·		5.0U			5.0U			5.0		
Chrysene	5.00			5.0U			5.0U			5.0U			5.0U			5.0∪			5.0		
bis(2-Ethylhexyl)phthalate	32	J	FG	17	J	FG	17	J	F	14	J	F	5.0∪			5.0U			5.0		
Di-n-octylphthalate	5.0U	J	F.	5.0U	J	F	5.0U	J	₹.	5.0U	J	F	5.0U			5.0∪			5.0		
Benzo(b)fluoranthene	0.13L	J	Α	5.00			5.0U			5.00	· · · · · · · · · · · · · · · · · · ·		5.0U			5.0U			5.0		
Benzo(k)fluoranthene	5.0U	67.73		5.0U			5.0∪			5.0U			5.0Ú			5.0U			5.0		
Benzo(a)pyrene	5.0U			5.0U		Ii	5.0U			5.0U			5.0U			5.0∪			5.0		
Indeno(1,2,3-cd)pyrene	5.0U			5.0U			5.0U			5.0∪			5.00			5.0U			5.0		i
Dibenzo(a,h)anthracene	5.0∪			5.0U			5.0∪			5.0U			5.0∪			5.0U			5.0		
Benzo(g,h,i)perylene	5.0U			5.0Ú			5.0U			5.0U			5.0U			5.00			5.0		

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Limit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

## TABLE 1B ~

## DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review," June 2001.

- U The analyte was analyzed for, but was not detected above the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.
- R The sample results are unusable. The analyte may or may not be present in the sample.

EPA SAMPLE NO.

Y1FS0
-------

Lab Name: SHEALY ENVIRONMENTAL Contract: 68W01040

Lab Code: SHEALY Case No.: 33335 Client No.:

SDG No.: Y1FR9

Lab Sample ID: FI15021-002

Date Received: 09/15/2004

Lab File ID: 092211

Date Extracted: 09/16/2004

Sample Volume:

1000 (ML)

Date Analyzed: 09/22/2004

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume:

1.0(UL)

, <del>/</del>		r			<del>, ,</del>
,	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01		UNKNOWN	9.09	2.8	====   .T
02	<del>301-02-0</del>	9-OCTADECENAMIDE, (Z)-Unkyowi		2.7	DAT.T
03	301 02 0	O CETADECLIVATION (2) NY RAGON	1 13.35	4.7	
04					
05		5L 7/7/06			
06				·	
07					
08	1				
.09					
10					
11					
12					
13			1.		
14				<del> </del>	
15					]
16	······································				
17 18					<del></del>
19			<u> </u>		
20			<del></del>	· · · · · · · · · · · · · · · · · · ·	
21	<del></del>		_		
22	<del></del>		~ <del></del>		
23					<del></del>
24					
25					
26					
27					
28		,			
29					
30	•		ļ		J

EPA SAMPLE NO.

Lab Name: SHEALY ENVIRONMENTAL Contract: 68W01040

Lab Code: SHEALY Case No.: 33335 Client No.:

SDG No.: Y1FR9

Lab Sample ID: FI15021-003

Date Received: 09/15/2004

Lab File ID: 092212

Date Extracted: 09/16/2004

Sample Volume:

1000 (ML)

Date Analyzed: 09/22/2004

Concentrated Extract Volume: 1000(UL)

Dilution Factor: 1.0

Injection Volume: 1.0(UL)

				EST. CONC.	_
	CAS NUMBER	COMPOUND NAME !	RT	(UG/L)	Q
01	=======================================	UNKNOWN	9.08	2.2	===== .J
02		UNKNOWN .	- <del>12.93</del>	- 2.4	
03		OIVIEVO/II	12.93	2.1	1
04				<del></del>	
05		SL 7/7/06			
06					
07					
08					
09					
10					
11					
12		· · · · · · · · · · · · · · · · · · ·			<u> </u>
13 14	<del></del>			<u> </u>	
$\frac{14}{15}$	<del></del>				
16				,	<del></del>
17	<del></del>				<b> </b>
18				<u> </u>	<del></del>
19					
20		,			
21					
22					
23					
24					
25					
26 27		<u> </u>	ļ	-	
28					
29					
30			<del> </del>		
1 30		L		L	L

EPA SAMPLE NO.

Y1FS2
-------

Lab Name: SHEALY ENVIRONMENTAL Contract: 68W01040

Lab Code: SHEALY Case No.: 33335 Client No.: SDG No.: Y1FR9

Lab Sample ID: FI15021-004

Date Received: 09/15/2004

Lab File ID: 092213

Date Extracted: 09/16/2004

Sample Volume: 1000 (ML)

Date Analyzed: 09/22/2004

Concentrated Extract Volume: 1000(UL)

Dilution Factor: 1.0

Injection Volume: 1.0(UL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
===	=======================================		======	===========	=====
01	<del>84-69-5</del>	1,2-BENZENEDICARBOXYLIC-ACID			
02		UNKNOWN	19.03		J
03		UNKNOWN	19.25	2.3	
04		UNKNOWN	19.81	3.4	J
05		UNKNOWN .	20.09	. 2.8	J
06					
07				· 	
08		SL, 7/7/106			
09					
10					
11					,
12		<u> </u>			
13		1			
14					
15					
16					
17					
18					
19					
20					<u> </u>
21				<u> </u>	
22					
23					
24					
25			· · · · · · · · · · · · · · · · · · ·		
26					
27					
28					
29			<u> </u>		
30					

EPA SAMPLE NO.

Lab Name: SHEALY ENVIRONMENTAL Contract: 68W01040

Lab Code: SHEALY Case No.: 33335 Client No.:

SDG No.: Y1FR9

Lab Sample ID: FI15021-005

Date Received: 09/15/2004

Lab File ID: 092214

Date Extracted: 09/16/2004

Sample Volume:

1000 (ML)

Date Analyzed: 09/22/2004

Concentrated Extract Volume:

1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0(UL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
===		1	1		=====
01		UNKNOWN	9.08	2.4	J
02	301-02-0	9-OCTADECENAMIDE, (Z)-Unknow		3.8	UM
03			Ť .	· · · · · · · · · · · · · · · · · · ·	
04				· · · · · · · · · · · · · · · · · · ·	
05		5.6 7/7/06		<del></del>	<del></del>
06	•				
07			1		
08				· · · · · · · · · · · · · · · · · · ·	
09					
10				· · · · · · · · · · · · · · · · · · ·	
11			1	<del></del>	i
12				· · · · · · · · · · · · · · · · · · ·	
13					
14			†·	<del></del>	
15				<del> </del>	
16				· · · · · · · · · · · · · · · · · · ·	
17		:	· .	<del></del>	
18					
19					
20					
21	1				
22					
23				,	
24					
25					
26	,				
27					· · · · · ·
28					
29					
30					

EPA SAMPLE NO.

Y1FS5	
	ì

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33335 Client No.: SDG No.: Y1FR9

Lab Sample ID: FI15021-007

Date Received: 09/15/2004

Lab File ID: 092216

Date Extracted: 09/16/2004

Sample Volume: 1000 (ML)

Date Analyzed: 09/22/2004

Concentrated Extract Volume: 1000(UL)

Dilution Factor: 1.0

Injection Volume:

1.0(UL)

1			<del> </del>	EST. CONC.	
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	Q
01	'=====================================	UNKNOWN	- 9.08	2.3	===== J
02	<del></del>	UNKNOWN	10.16		J
03		UNKNOWN	19.80		J
04		UNKNOWN	20.08		<del>5</del>
05		ONITAOMIA	20.00		
06			<del>                                     </del>		
07					
08					<del></del> -
09			<del></del>		<del></del> -
10					
11	<del></del>		<del></del>		
12		*			
13		,		<del> </del>	
14			·	<del></del>	
15	. —			<del></del>	
16					
17					
18					
19					·
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

EPA SAMPLE NO.

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33335 Client No.:

SDG No.: Y1FR9

Lab Sample ID: FI15021-008

Date Received: 09/15/2004

Lab File ID: 092217

Date Extracted: 09/16/2004

Sample Volume:

1000 (ML)

Date Analyzed: 09/22/2004

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0(UL)

Number TICs found: 1

	. ——	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				<del></del> ,
01 301-02-0 9-OCTADECENAMIDE, (Z)-Wkynam 15.58 2.3 MJ 02 03 04 04 05 05 06 07 07 08 09 0 09 0 0 0 0 0 0 0 0 0 0 0 0 0 0			COMPOUND N			EST. CONC. (UG/L)	Q =====
02   03   04   SL 7/7/46.   05   06   07   08   09   10   11   12   13   14   15   16   17   18   19   20   20   21   22   23   24   25   26     25   26			9-OCTADECENAMIDE,			2.3	
03	02			· · · · · · · · · · · · · · · · · · ·			
04							<u> </u>
05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26			3 L	7/7/46.			
06       07         08       09         10       11         12       13         14       15         16       17         18       19         20       21         22       23         24       25         26       26	05						<del></del>
07       08       09       10       11       12       13       14       15       16       17       18       19       20       21       22       23       24       25       26	06						
09         10         11         12         13         14         15         16         17         18         19         20         21         22         23         24         25         26					,		
09         10         11         12         13         14         15         16         17         18         19         20         21         22         23         24         25         26	08						
11         12         '13         14         15         16         17         18         19         20         21         22         23         24         25         26	09						
12         13         14         15         16         17         18         19         20         21         22         23         24         25         26	10						
13       14         15       16         17       18         19       20         21       22         23       24         25       26	11						
14         15         16         17         18         19         20         21         22         23         24         25         26	12						
15         16         17         18         19         20         21         22         23         24         25         26	13		,				
15       16         17       18         19       20         21       22         23       24         25       26	14		·				
17         18         19         20         21         22         23         24         25         26	15						
18       19       20       21       22       23       24       25       26							
19       20       21       22       23       24       25       26	17	·					
20       21       22       23       24       25       26							
21       22       23       24       25       26							
22       23       24       25       26							
23       24       25       26	21						
24 25 26	22						
25 26							
26	_24						
27			· · · · · · · · · · · · · · · · · · ·				
<u>-                                   </u>	_27						
28						-	
29	29						
30	30						

FORM I LCSV-TIC

EPA SAMPLE NO.

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33335 Client No.:

SDG No.: Y1FR9

Lab Sample ID: FI15021-009

Date Received: 09/15/2004

Làb File ID: 092218

Date Extracted: 09/16/2004

Sample Volume:

1000 (ML)

Date Analyzed: 09/22/2004

Concentrated Extract Volume:

1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0(UL)

	CAS	NUMBER	COMPOUND	NAME	RT	EST. CONC. (UG/L)	Q =====
01			UNKNOWN		9.08		
02	<del></del>		021.010112	· · · · · ·			
03					·		
04					· · · · · · · · · · · · · · · · · · ·		
05	· ·						
06							
07							
08						·	•
09							
10							
11			·	<u> </u>			
12							
13							
14	·						
15	<del></del>		<u> </u>		ļ <u>.</u>		<u> </u>
16	·				·		<u> </u>
17						· · · · · · · · · · · · · · · · · · ·	
18							
19 20	<del></del>	<del></del>					
21	<del></del>			<del></del>	<u></u>		<u> </u>
22			<del></del>			<u> </u>	
23				<del></del>		<u> </u>	
24							
25							
26	·						<u> </u>
27				<del> </del>			
28					<del>                                     </del>		
.29							
30			, , , , , , , , , , , , , , , , , , , ,				

EPA SAMPLE NO.

Y1FS8	

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33335 Client No.:

SDG No.: Y1FR9

Lab Sample ID: FI15021-010

Date Received: 09/15/2004

Lab File ID: 092219

Date Extracted: 09/16/2004

Sample Volume:

1000 (ML)

Date Analyzed: 09/22/2004

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0(UL)

Number TICs found: 1

				EST. CONC.	<del></del>
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	Q
01	=======================================	UNKNOWN	9.08	2.8	J
02		ONRIOWN	9.00	2.0	<u> </u>
03					
04	•			· · · · · · · · · · · · · · · · · · ·	
05					
06					
07					
08	<del></del>				•
10					
11			<del> </del>	· · · · · · · · · · · · · · · · · · ·	
12	<del></del>			· — · — · · · · · · · · · · · · · · · ·	
13					
14					
15					
16				<u> </u>	
18	<del></del>				<del></del>
19					
20	<del> </del>				
21					
22					<u> </u>
23	·				
24 25	<del></del>		· · · · · · · · · · · · · · · · · · ·		
26	<del></del>				
27		<del> </del>		<u> </u>	
28				· · · · · · · · · · · · · · · · · · ·	
29					
30					

FORM I LCSV-TIC

#### 1LCG

## LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y1FT1
-------

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33335 Client No.:

SDG No.: Y1FR9

Lab Sample ID: FI16014-003

Date Received: 09/16/2004

Lab File ID: 092221

Date Extracted: 09/16/2004

Sample Volume:

1000 (ML)

Date Analyzed: 09/22/2004

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0(UL)

		T		EST. CONC.	
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	Q
===	=======================================	_======================================	======	=======================================	=====
01		UNKNOWN	9.08	. 2.7	J
02	5466-77 <b>-</b> 3	2-PROPENOIC ACID, 3-(4-METHO	15.40	2.5	NJ
03					
.04					
05					
06					
07					
08					
09					
10					
11					
12					
13			-		
14					
15					
16					
17					
18		,			<u>.                                    </u>
19					
20					
21	·				
22					
23		·			
24					
25					
26					
27					
28		· · · · · · · · · · · · · · · · · · ·			
29					
30					

EPA SAMPLE NO.

Y1FT2	

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33335 Client No.:

SDG No.: Y1FR9

Lab Sample ID: FI16014-004

Date Received: 09/16/2004

Lab File ID: 092222

Date Extracted: 09/16/2004

Sample Volume:

1000 (ML)

Date Analyzed: 09/22/2004

Concentrated Extract Volume: 1000(UL)

Dilution Factor: 1.0

Injection Volume: 1.0(UL)

				EST. CONC.	
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	Q
01	5466-77-3	2-PROPENOIC ACID, 3-(4-METHO	15.40	6.4	NJ
02	111 02-4 Unknown	2,6,10,14,18,22-TETRACOSAHEX	- 17.54	4.5	<b>W</b> J
03					•
04					
05		54 7/7/06			
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22				<u></u>	·
23	· · · · · · · · · · · · · · · · · · ·				·
24					
25					
26					
27					
28		<u> </u>			
29					
30					

# LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS EPA SAMPLE NO.

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33335 Client No.:

SDG No.: Y1FR9

Lab Sample ID: FI16014-005

Lab File ID: 092223

Date Received: 09/16/2004

Date Extracted: '09/16/2004

Sample Volume:

1000 (ML)

Date Analyzed: 09/22/2004

Concentrated Extract Volume: 1000(UL)

Dilution Factor: 1.0

Injection Volume: 1.0(UL)

1		<del></del>	<del></del>	EST. CONC.	<del>,</del>
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	Q
01	5466-77-3	2-PROPENOIC ACID, 3-(4-METHO	15.40	7.9	===== N.T
02	7683-64-9-	SQUALENE Unknown	17.53	3.2	UK
03		CINE NC			
04					
05		56 717176	<del></del>		
06	,	1			
07					
08					
09		, , , , , , , , , , , , , , , , , , , ,			
10					
11	,				
12					
13		<u> </u>			
14					
15		,			
16		,			
17				/ .	
18					
19					
20				·	
21					
22		•			
23					i
24					
25					
26	<u> </u>		,		
27				<u>'</u>	
28	<del></del>	<del> </del>			<del></del>
29 30					
J 301					l i

EPA SAMPLE NO.

Lab Name: SHEALY ENVIRONMENTAL Contract: 68W01040

Concentrated Extract Volume:

Lab Code: SHEALY Case No.: 33335

Client No.:

SDG No.: Y1FR9

Lab Sample ID: FI17023-003

Date Received: 09/17/2004

Lab File ID: 0928C14

Date Extracted: 09/22/2004

Date Analyzed: 09/28/2004

Sample Volume: 1000 (ML)

1000 (UL)

Dilution Factor: 1.0

Injection Volume: 0.5(UL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01 -	======================================	BUTYLATED HYDROXYTOLUENE	-8.69	<del>- 2.4</del>	NITE
02	·	UNKNOWN	15.96	2.0	J.
03		OlvidyOMIV	13.30	2.0	-
04	· · · ·			<del></del>	
05		5 L 7/7/56			
06		3 5 , // -			
07	· · · · · · · · · · · · · · · · · · ·	<del></del>		<del></del>	
08		80.			
09					
10					
11		<b>.</b> 1			
12					
13					
14	1				
15		<u> </u>			
16					
17					
18	·_				
19				<u> </u>	
20					L}
21					
22				<u>.</u>	
24					
25	·				
26	······				
27					·
28	<del></del>	· · · · · · · · · · · · · · · · · · ·	<u></u>		<del></del>
29			<u> </u>	<del></del>	
30	<del></del>		-		

Date : 22-SEP-2004 15:29

Client ID: Y1FS1

Instrument: msd7.i

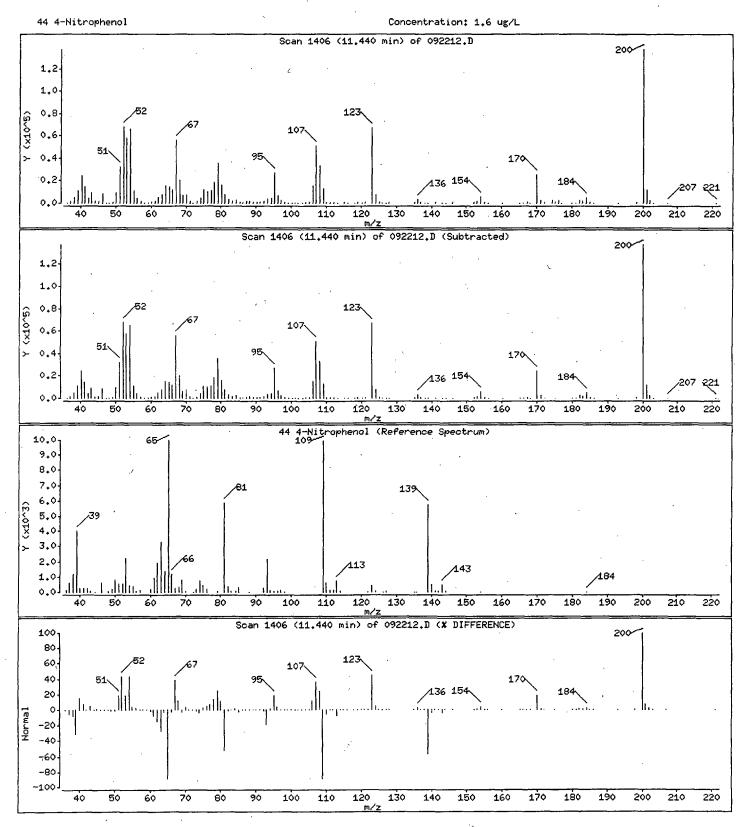
Sample Info: 7sep2204.b,FI15021-003,18689

Volume Injected (uL): 1.0

Column phase: DB-5MS

Operator: DC

Column diameter: 0.25



Date : 22-SEP-2004 15:00

Client ID: Y1FS0

Instrument: msd7.i

Sample Info: 7sep2204.b,FI15021-002,18689

Volume Injected (uL): 1.0

Column phase: DB-5MS

Operator: DC

Column diameter: 0.25

Concentration: 1.6 ug/L

